Claims

1. A process for the production of a dimeric, biologically active Transforming Growth Factor type β (TGF-β)-like protein, comprising treating the denatured monomeric form of said TGF-β-like protein with a detergent-free buffer comprising an organic solvent selected from the group consisting of DMSO, $DMSO_2$, DMF, and any mixture of two or three members of the group consisting of DMSO, $DMSO_2$ and DMF.

2. The process according to claim 1 in which the buffer additionally contains a reducing substance.

3. The process according to claim 1 or 2 in which the organic solvent is selected from the group consisting of DMSO, DMF and any mixture thereof.

4. The process according to claim 1 or 2 in which organic solvent is used in a concentration of about 10 to about 50%.

5. The process according to claim 1 or 2 in which organic solvent is used in a concentration of about 20 to about 50 %

6. The process according to claim 1 or 2 in which organic solvent is used in a concentration of about 30 to about 50%

7. The process according to claim 1 or 2 in which organic solvent is used in a concentration of about 30 % to about 40 %.

8. The process according to claim 1 or 2 in which organic solvent is used in a concentration of about 40 %.

9. The process according to claim 1 or 2 in which the TGF-β-like protein is selected from the group consisting of TGF-β1, TGF-β2, TGF-β3, heterodimeric TGF-βs, fragments and mutants of a TGF-β including hybrid molecules in which parts of different TGF-βs are exchanged, BMPs, inhibins and activins.

10. The process according to claim 1 or 2 in which the TGF-β-like protein is selected from the group consisting of TGF-β2, TGF-β3, hybrid TGF- β1-2, hybrid TGF- β1-3, hybrid TGF-β2-3, hybrid TGF- β3-2, and BMP-2.

11. The process according to claim 10 in which the TGF-β-like protein is TGF-β3.

12. The process according to any of claims 1 or 2 in which the buffer has a pH of about 6 to about 10.

13. The process according to any of claims 1 or 2 in which the buffer has a temperature of about 0°C to about 40°C.

14.The process according to claim 2 in which the reducing substance is a reduced sulfhydryl compound.

15. The process according to claim 2 in which the reduced sulfhydryl compound is selected from the group consisting of glutathione in its reduced form, β-mercaptoethanol in its reduced form, mercaptomethanol in its reduced form, cysteine, cysteamine, and dithiothreitol in its reduced form.

16. The process according to claim 2 in which the reduced sulfhydryl compound is used in a concentration of about1 to100mM.

17. The process according to claim 2 in which the reduced sulfhydryl compound is used in a concentration of about1 to10mM

18. The process according to claim 2 in which the reduced sulfhydryl compound is used in a concentration of about 2.5 mM.

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